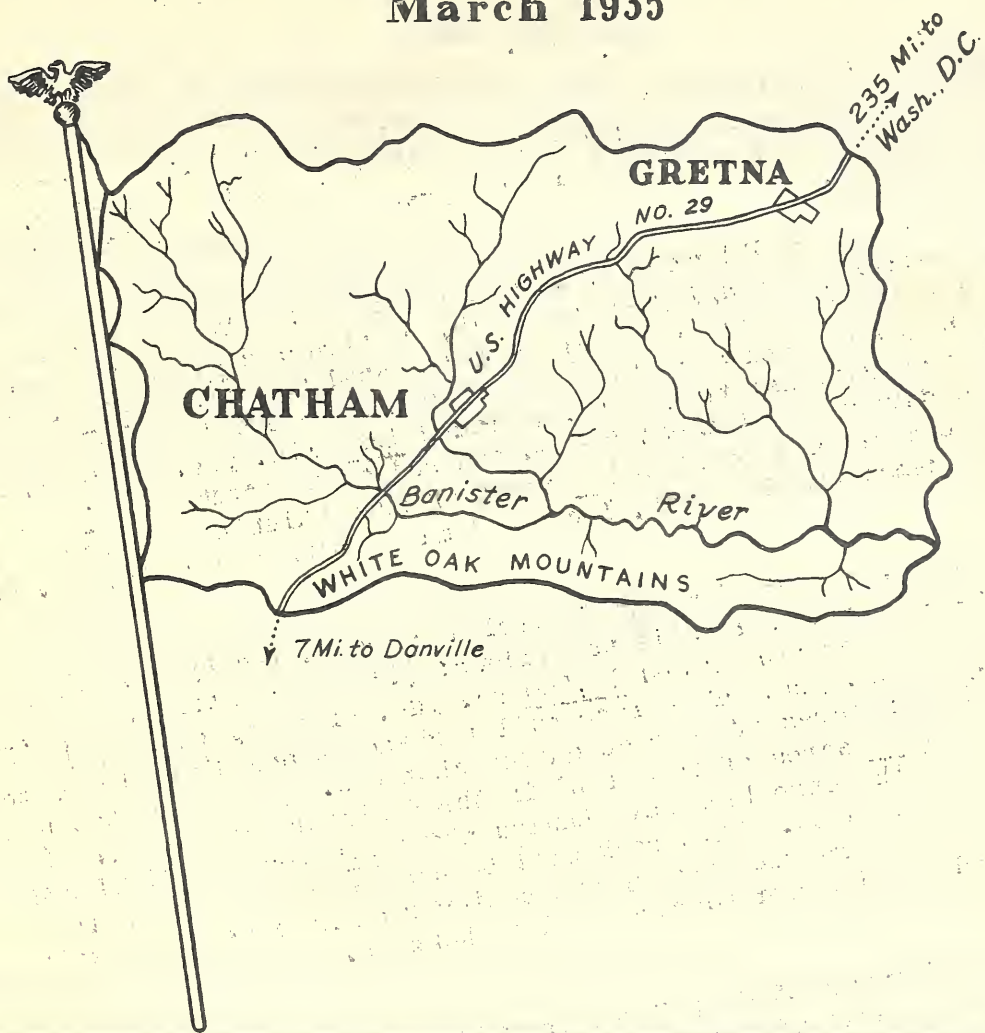


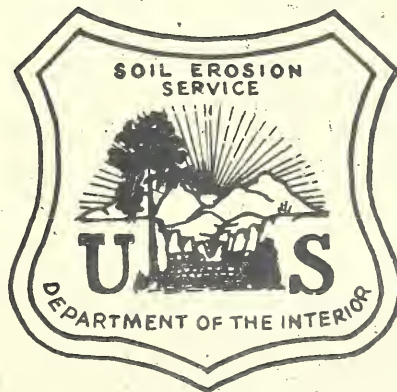
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March 1935



Banister River Banner



VOLUME 1

CHATHAM, VIRGINIA

NUMBER 8

SOIL EROSION SERVICE
United States Department of the Interior
Chatham, Va.-Project No. 22

SES-VA-1 NEWS

Accomplishments

Although the Camp crews have been seriously hampered in their activities during the past month because of intensive rains and freezing weather, exceptionally good progress has been made in all phases of Soil Erosion Control work assigned to them.

During the month of February or from the 1st to the 25th inclusive, the six crews of enrollees, averaging 28 men each, constructed 411 soil check dams in eroded gullies and terrace outlet channels; sloped and graded 420 square yards of gully banks by hand and with explosives in preparation for the seeding and planting operations; trenched and graded 1950 lin. yds. of terrace outlet channels and diversion ditches; seeded and sodded approximately 2 acres of terrace outlet channels and completed 5 acres of tree thinning and forest clean-up on a forestry demonstration plot, located 1 mile south of Gretna, Va. on Highway 29.

The total amount of Soil Erosion Control Work completed by this Camp from June 21, 1934 to February 25, 1935 is as follows: (1) The construction of 5846 soil check dams (2) Sloped and graded 14,700 sq. yds. of gully banks (3) Trenched and graded 27,720 lin. yds. of terrace outlet channels and diversion ditches (4) Seeded and sodded 2 acres of terrace outlet channels. This work has benefited approximately 2609 acres of farm land in the Banister River Area. In addition to this work the enrollees have hauled about 970 tons of field rock to seven stock piles in the area. This rock will be used at a later date in the construction of permanent rubble masonry and semi-permanent loose rock soil check dams in eroded gullies and terrace outlet channels.

Education

The Educational Program at Camp Casey is well underway at this time. The Camp Commander with the assistance of his Educational Adviser, his Staff Officers and several members of the SES Supervisory Personnel are teaching on an average of 18 classes each week. The classes are held in the Recreation and Mess Halls from 6:30 to 10:00 o'clock each evening from Monday through Friday.

A few of the major subjects which are being taught by the Camp Supervisors are as follows: Reading, Writing, Arithmetic, Spelling, History, Geography, Soil Erosion and its Control, Surveying, Business English, English Grammar, Automobile Mechanics, Cooking and Baking, First Aid and Salesmanship.

In addition to the regular classes on Tuesday evenings, the entire Camp Personnel is assembled in the Recreation Hall to hear short talks given by members of the Soil Erosion Service Technical Staff on various subjects pertaining to Soil Erosion and its Control. These talks are very instructive and unusually interesting.

Athletics

Every Thursday evening a class in boxing is held in the Recreation Hall for the enrollees who are anxious to learn the manly art of self defense. This class is under the expert direction of Mr. Wm. A. Towler, SES foreman and ex-V.P.I. pugilist. The Camp basketball team has made an excellent record this season. The Camp Casey sharp shooters have won 15 games of the 20 games played to-date and have rolled up a total score of 856 points or an average of 43 points per game to their opponents 616 points. Lally and Stephenson have been the shining lights on the offensive all during the season, with Matty, Brown, Borio and Hanna starring on the defensive.

FORESTRY DEPARTMENT

As this copy of the "Banner" reaches you, Southside Virginia will be entering the most dangerous season of the year for forest fires. Late March and April see more acres of woodland devastated by fire in this state than any other like period during the year.

We urge your assistance in preventing all forest fires. Take double precautions during this spring season. If burning is absolutely essential do it on rainy days or on calm nights after five o'clock. Be sure to stay with every fire till the last spark is out.

In return for this assistance we will send men to combat and control fires which may break out in our demonstration area. If help of this sort is needed phone the Soil Erosion Service at Phone #150, Chatham, Virginia, and give definite directions for reaching the fire.

Fires cause damage in many ways, some of which are:

1. Speeding soil washing.
2. Damage to merchantable timber.
3. Killing young growth.
4. Destruction of barns, fences, and other improvements.
5. Destruction of game and game food.

Conservation in the Farm Woodlot

Careful handling of the farm woodlot is a practice that is being employed by an increased number of farmers over the country every year. Such a practice requires no more labor than non-conservative methods and in the long run proves to be of great benefit to the farmer.

By "careful" handling of woodlots we mean that method which aims at total independence of the individual farm for its cordwood and lumber needs. There are a few farms in this area that are so small in acreage that the necessity for cultivation leaves hardly enough acreage to allow the final achievement of this goal of timber "independence", but the great majority of farms are of sufficient acreage to see clear sailing toward this goal. The time to begin is 1935!

For example: Mr. B. A. Roach, an enthusiastic cooperator of the Soil Erosion Service, has a 98 acre farm near Hill Creek Church. When Mr. Roach took over this farm, 18 years ago, he set aside $3\frac{1}{2}$ acres of 5 year old pines for his permanent woodlot. Today Mr. Roach has a fine stand of pine, still $3\frac{1}{2}$ acres, and is able to cut 5 cords of wood a year without endangering the permanency of his stand. The reason is that instead of cutting his timber in blocks Mr. Roach uses the selection system which makes for faster growth and a permanent stand.

For his flue wood and household needs, Mr. Roach uses about 30 cords of wood a year, of this he is now assured of 5 cords from his woodlot. This seems a rather small percentage but Mr. Roach intends to raise this percentage to as near 100% as his acreage will allow, by enlarging his selective cutting area.

Soils of the Banister Watershed

Up to date the Soils Department have made a soil and erosion survey of 740 farms, a total of 92,550 acres in the watershed.

Below is given a description and discussion of the Appling soil series found in this area. This is a continuation of soil articles started by the Soils Department several months ago.

APPLING SANDY LOAM (2)*

The surface soil of the Appling sandy loam is light gray to yellowish-gray, friable, yellow sandy loam from 12 to 16 inches in depth, when not eroded.

The subsoil in the upper portion is a dull yellow or brownish-yellow friable brittle clay loam, extending to a depth of 15 to 24 inches. The lower portion of the subsoil is usually mottled light red, yellow and gray hard brittle clay which usually grades into varicolored disintegrated rock.

DERIVED FROM - Granitic and gneiss rocks.

DISTRIBUTION - This soil type is associated in small patches with the Cecil soils, in the "Granitic" section of this area.

FERTILITY - Phosphorous is low and for high yields a fertilizer high in this nutrient will give best results. The potash content is variable, but generally should be included in a complete fertilizer.

The Nitrogen content is very low, this can be corrected to a large extent by plowing under of all crop residues, especially leguminous crops. This not only adds nitrogen to the soil but organic matter as well. This organic matter absorbs large amounts of water, which is needed by the crops, but also improves the mechanical condition of the soils, so that the other plant food nutrients will become available more rapidly.

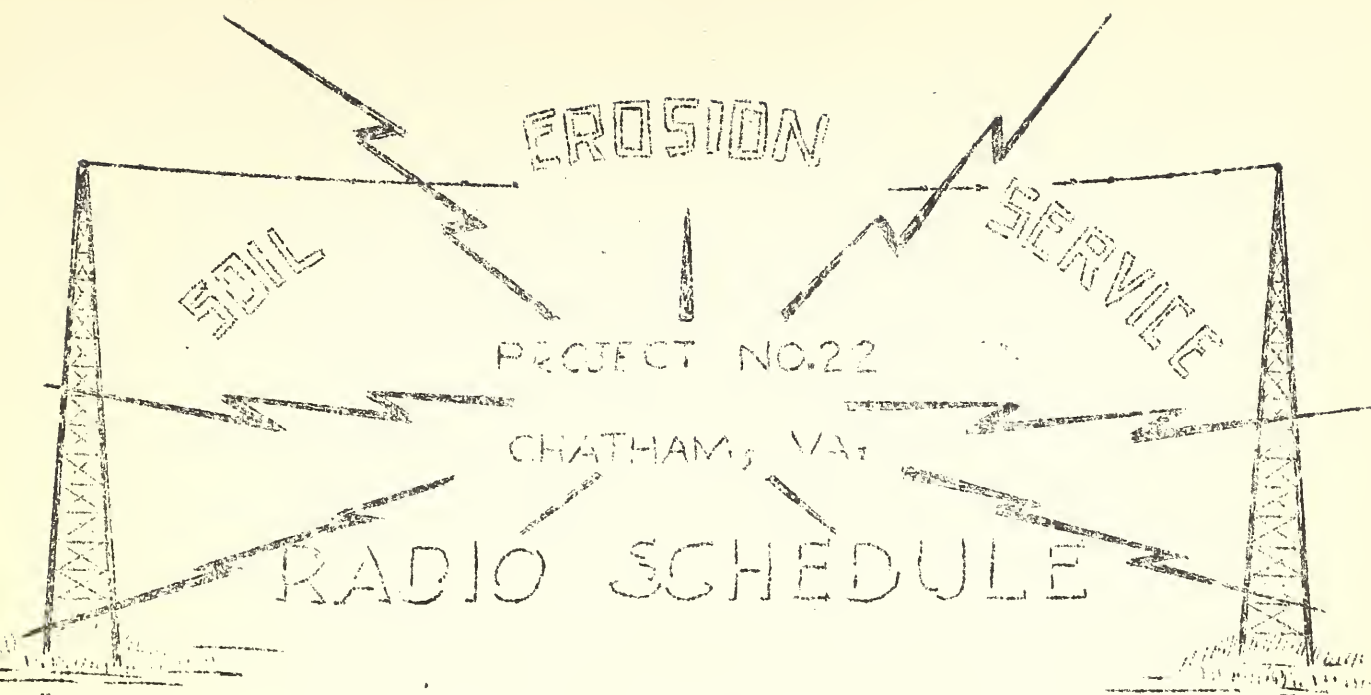
The analysis shows this soil to be variable in its lime requirements, but in most cases small applications of ground limestone will increase its productivity. Heavy applications of lime will benefit cowpeas and the legumes. In all cases sufficient limestone should be added to correct acidity of the soil.

CROP ADAPTABILITY - This soil is especially suited for growing flue cured tobacco and truck crops. Sorghum of better quality is grown on this soil than on other heavier types. The following crops will also do well: corn, forage and small grain.

* Numbers in parenthesis represent symbols used in mapping soil types on aerial sheets.

* * * * *

All the fertilizer in the world applied to your farm is of no lasting value if allowed to wash down on your neighbor's farm.



STATION W.B.T.M., DANVILLE, VA.-FARM BULLETIN HOUR-1:30 P.M.

- March 5, 1935 - "Erosion and Land Utilization", by A. H. Simerson,
Assistant Soil Expert.
- March 12, 1935- "Soil Erosion and Floods", by J. L. Hosterman,
Assistant Soil Expert.
- March 19, 1935- "Soil Erosion Control and Crop Rotation", by J. L.
Harrison, Agricultural Aide.
- March 26, 1935- "Lespedeza and Erosion Control", by T. L. Copley,
Chief Agronomist.

STATION W.R.V.A., RICHMOND, VA.-3:00 to 3:15 P.M.

- March 7, 1935 - "The Menace of Soil Erosion", by John A. Smart, Act-
ing Erosion Specialist.
- March 14, 1935- "Vegetative Control of Erosion", by R. C. Harvey,
Assistant Agronomist.
- March 21, 1935- "Soil Erosion and Control Methods", by F. F. Nickels,
Soil Expert.
- March 28, 1935- "America Must Battle Erosion", by P. F. Keil, Region-
al Director.

* * * * *

The Soil Erosion Service has recently performed a much needed task. Here-
tofore, tourists passed through the area without knowing it, and even some of
the people residing in Pittsylvania County had only a hazy idea of the location
and extent of the demonstrational area. This condition is now offset by six
large Soil Erosion Service signs placed on the border of the area wherever it
is penetrated by a main artery of traffic.

OUR PROBLEM

"After all is said, it is erosion that constitutes the real American crisis in land use. The step that inevitably must be taken to control the devastating agency of erosion, and the causative process of speeded-up runoff, is the application of a coordinated land-use program, applied in accordance with the specific needs and adaptabilities of every acre of land within watershed areas. There can be no alternative. The seeking of one will mean merely the putting off of doing those things that must be done, with a more difficult and costly job put off into the future." --H. H. Bennett, Dir., S.E.S., Washington, D. C.

NO OTHER WAY OUT

This job of controlling erosion must be carried through to completion. The physical facts involved show conclusively that there is no other way out if the agricultural lands of the nation are to be saved.

Remember that our top soil is the main thing that conserves our moisture.

STRIP CROPPING

The term "strip cropping" in connection with erosion control activities is applied in two practices:

One of these practices is called "crop stripping", and this consists of seeding narrow strips of some thick growing crop at intervals along contour lines in a large field. The other practice can be designated "field stripping", that is, a farm is laid out in long narrow fields running crosswise of the line of slope or on the contour.

KUDZU

Kudzu is a perennial leguminous vine native to Japan. Kudzu is valuable as a forage crop. It may be grazed or cut for hay, but in either case it must be handled with a certain degree of care if good results are to be obtained over a long period. It can be over-grazed, or it can be cut so often that the stand is reduced until the field is no longer profitable.

Kudzu will grow on many soil types and can thrive on soils too acid for alfalfa or clover. The plants should be set before the new growth begins.

To prevent Soil Erosion in gullies and on steep slopes a heavy growth of kudzu gives substantial protection against soil erosion. In such situations a limited amount of grazing can be allowed and kudzu will not only prevent further erosion, but also will give the farmer some return from the land.

AN OLD STORY

The Romans noted the folly of growing the same crops on the same land for several consecutive years, but attention was first called to the value of crop rotation by Dickson of Edinburgh in 1777.

AGRONOMY DEPARTMENT

Spring seeding season is now in full swing and indications are that our cooperators are making every effort to get S.E.S. seeding off hand before getting into their other farm work. Our contact men are spending most of this month going back over the farms they have worked in order to render any assistance needed. We don't want to worry our cooperators with visits, but we are anxious to help them get their seeding done at the best time, at the right place and in the right manner. Also, for our records and our reports to Washington, we will want to know about when the seeding has been completed.

Lime spreaders are going at full speed and much of this work is being done. However, we are suggesting that seeding be done before the lime is spread if necessary. The lime may be applied later with good results.

NEW LIME BEING ORDERED

We have begun to order lime on our new contract and we hope to complete delivery as fast as our cooperators want it. Due to the bad winter weather, much of the first lime is yet to be spread and we are anxious to get most of that spread before getting in much of the new lime.

The lime on our new contract will be dry and it contains more powdered material than that purchased from the Bertha Mineral Company. For this reason it may not handle quite as easily and it also may be scattered more by the wind. Since it comes dry it may be worthwhile to either put it under a shelter, cover the piles in the field, or spread it as fast as received. This lime should spread easily with any kind of spreader.

START THE ROTATION

The Soil Erosion Service believes that a good crop rotation is one of the most effective ways of controlling erosion. This is so important that on each farm under an agreement a suitable rotation has been worked out with the farmer which he is to follow from year to year. On tobacco land this rotation may be small grain and Herds grass following tobacco. On other cultivated land the rotation recommended is corn and small grain followed by clover or lespedeza. Such a rotation should not only control erosion, but it should double the yields of corn and grain in a few years.

This is part of the farmers regular plan and he, of course, furnishes his own clover or lespedeza seed. In another paragraph we offer suggestions about starting a lespedeza seed patch. But whether you buy or grow them this is the month for seeding, and all cooperators should get their rotations started now.

STARTING YOUR LESPEDEZA SEED FIELD

Are you thinking about a lespedeza seed patch on your farm this spring? If not, you should be since your cropping plan calls for a legume in the rotation. Lespedeza produces seed abundantly. A few acres of Korean lespedeza sown on good land will produce abundant seed for your seeding next spring. If you were not allotted lespedeza for a seed patch, buy 40 or 50 pounds, it will be a very good investment.

You will admit that for the past four or five years there has been very little seeding of grass and clover. Why? Conditions would not permit the buying of seed. We do not ask you to buy the seed from year to year, we merely ask you to invest a little work to save the lespedeza seed that will be needed to do the seeding on your farm. Consider this - it's practical. More lespedeza seed saving suggestions will be given later.

* * * * *

Do you try to repair your car when you can't buy a new one? Why not try to repair your farm if you can't buy a new one?

Rip Van Winkle had nothing on us. We slept 40 years while erosion was doing its worst.

* * * * *

Ten Fundamental Steps

in

Controlling Erosion and Floods

1. Crop Rotation
2. Strip Cropping
3. Contour Farming
4. Terracing
5. Prevention of Fire and Overgrazing
6. Contour Furrowing of Pasture Lands
7. Planting Trees and Grass on Badly Eroded Land
8. Use of Winter Cover Crops
9. Gully Control
10. Construction of Farm Reservoirs.

WHICH LAND IS WORTH MORE?

This acre that has been fertilized and limed, and produced crops valued at \$129.09 during a 5-year rotation.....

OR

....this adjoining acre that has been fertilized but not limed, and produced crops worth \$70.01 during a 5-year rotation.

CORN 222 Bus.
OATS 407 Bus.
WHEAT 174 Bus.
CLOVER 1459 lbs.
TIMOTHY 1586 lbs.

CORN 452 Bus.
OATS 550 Bus.
WHEAT 276 Bus.
CLOVER 3793 lbs.
TIMOTHY 3920 lbs.

Land that is used for farming is worth only as much as its ability to produce crops, no more. When a farmer buys or rents land he is making a purchase of its capacity to produce. Any practice or treatment that makes land more productive increases its value. Liming is such a practice.

It is not unusual for a properly limed acre to yield crops with an annual net value of \$5.00 to \$10.00 more than an adjoining acre that is acid and lime-needy. The average yearly investment in liming material to produce this extra profit is only \$2.00 to \$4.00 per acre.

This modest investment yields two types of profit:

1. Operating profit obtained by selling the increased yield.
2. Capital profit obtained when the land which has been made more productive is sold or rented.

I T I S G O O D B U S I N E S S T O L I M E T H E S O I L !

S O I L E R O S I O N S E R V I C E
United States Department of the Interior
Chatham, Va.
Project No. 22

A CIVILIZATION CHOKED BY MUD

A NEW explanation of why the great Maya civilization of Central America, undoubtedly the highest of prehistoric America, suddenly faded and vanished without any obvious reason was suggested recently to the Washington Academy of Sciences by Dr. C. Wythe Cooke of the U. S. Geological Survey. Says Dr. E. E. Free, in his WEEK'S SCIENCE (New York):

"The Maya civilization choked itself to death, Dr. Cooke believes, with mud washed from its own hillside corn patches. The former Maya country is marked today, Dr. Cooke reports, by many small, flat plains of sticky clay soil, almost impassable in wet weather. Each of these plains, he believes, once was a small lake, these lakes being connected by streams or by short portages forming a system of water highways as the lakes of North America once did for the canoes of the Indians. The Maya cities, he believes, were built near these lake highways, and maintained by this easy form of transportation. On near-by hillsides, the theory continues, the Maya farmers grew the corn, which was their chief food. In so doing they cut or burned the natural hillside vegetation. The result was that every violent rain-storm washed a part of the hillside soil down into the lakes. Slowly the lakes filled up and the hillsides grew bare. The filling of the lakes blocked the waterways, while erosion of the hillside soils ruined the farms and lowered the nation's supply of food. Finally, Dr. Cooke believes, the entire Maya nation was forced by poverty and famine to migrate to new homes in Yucatan, which is what the historical and other records show that they did." -- LITERARY DIGEST, September 5, 1931.

* * * * *

"We have been living in a fool's paradise with respect to our conceptions regarding the security of our agricultural lands, and for this reason we have begun only recently to see the light with sufficient clearness to get under way those methods of land protection which should have been started seventy-five or a hundred years ago." -- H. H. Bennett, Director, S.E.S.

* * * * *

A man from Mars alighted in America, intending to remain if he liked the country, and engaged an experienced booster to serve as guide.

As the two drove across country, the Martian observed the strange color of creeks and rivers and asked what made the water so dark.

"That", said the booster, "Is mud made of topsoil. Most of our land is sloping and the usual method of cultivation encourages washing. In a few years our soil will be gone."

"But why is it permitted?" asked the Martian.

"Oh", said the booster, "this is a free country and a man can do as he pleases with his own property." -- Robert Quillen-in the Atlanta Constitution.

* * * * *

"The public has a paramount interest in soil conservation.

The right of future generations to a soil that will provide them with sufficient food is superior to the right of a present owner to ruin that soil by careless handling." -- Clifford V. Gregory - in the Prairie Farmer.